SEQUENCE LISTING

```
<110> O'Hara Jr., Richard
      Nagelin, Ann Marie
<120> AGENTS THAT SPECIFICALLY BLOCK
  CD28-MEDIATED SIGNALING AND USES THEREFOR
<130> GNN-028
<150> 60/269,756
<151> 2001-02-16
<160> 2
<170> FastSEQ for Windows Version 4.0
<210> 1
<211> 3803
<212> DNA
<213> Homo sapiens
<400> 1
taaagtcatc aaaacaacgt tatatcctgt gtgaaatgct gcagtcagga tgccttgtgg 60
ttgagtgcct tgatcatgtg ccctaagggg atggtggcgg tggtggtggc cgtggatgac 120
ggagactete aggeettgge aggtgegtet tteagtteee eteacactte gggtteeteg 180
gggaggaggg getggaacce tageceateg teaggacaaa gatgeteagg etgetettgg 240
ctctcaactt attcccttca attcaagtaa caggaaacaa gattttggtg aagcagtcgc 300
ccatgettgt agegtacgac aatgeggtea accttagetg caagtattee tacaatetet 360
tetcaaggga gtteegggea teeetteaca aaggaetgga tagtgetgtg gaagtetgtg 420
ttgtatatgg gaattactcc cagcagcttc aggtttactc aaaaacgggg ttcaactgtg 480
atgggaaatt gggcaatgaa tcagtgacat tctacctcca gaatttgtat gttaaccaaa 540
cagatattta cttctgcaaa attgaagtta tgtatcctcc tccttaccta gacaatgaga 600
agagcaatgg aaccattatc catgtgaaag ggaaacacct ttgtccaagt cccctatttc 660
ccggaccttc taagcccttt tgggtgctgg tggtggttgg tggagtcctg gcttgctata 720
gettgetagt aacagtggce titattattt tetgggtgag gagtaagagg ageaggetee 780
tgcacagtga ctacatgaac atgactcccc gccgccccgg gcccacccgc aagcattacc 840
agccctatgc cccaccacgc gacttcgcag cctatcgctc ctgacacgga cgcctatcca 900
gaagccagcc ggctggcagc ccccatctgc tcaatatcac tgctctggat aggaaatgac 960
cgccatctcc agccggccac ctcaggcccc tgttgggcca ccaatgccaa tttttctcga 1020
 gtgactagac caaatatcaa gatcattttg agactctgaa atgaagtaaa agagatttcc 1080
tgtgacaggc caagtcttac agtgccatgg cccacattcc aacttaccat gtacttagtg 1140
 acttgactga gaagttaggg tagaaaacaa aaagggagtg gattctggga gcctcttccc 1200
 tttctcactc acctgcacat ctcagtcaag caaagtgtgg tatccacaga cattttagtt 1260
 gcagaagaaa ggctaggaaa tcattccttt tggttaaatg ggtgtttaat cttttggtta 1320
 gtgggttaaa cggggtaagt tagagtaggg ggagggatag gaagacatat ttaaaaacca 1380
 ttaaaacact gtctcccact catgaaatga gccacgtagt tcctatttaa tgctgttttc 1440
 ctttagttta gaaatacata gacattgtct tttatgaatt ctgatcatat ttagtcattt 1500
 tgaccaaatg agggatttgg tcaaatgagg gattccctca aagcaatatc aggtaaacca 1560
 agttgctttc ctcactccct gtcatgagac ttcagtgtta atgttcacaa tatactttcg 1620
 aaagaataaa atagttotoo tacatgaaga aagaatatgt caggaaataa ggtcacttta 1680
 tgtcaaaatt atttgagtac tatgggacct ggcgcagtgg ctcatgcttg taatcccagc 1740
 actttgggag gccgaggtgg gcagatcact tgagatcagg accagcctgg tcaagatggt 1800
```

gaaactccgt ctgtactaaa aatacaaaat ttagcttgge ctggtggcag gcacctgtaa 1860 tcccagctge ccaggaggct gaggcatgag aatcgcttga acctggcagg cggaggttge 1920 agtgagccga gatagtgcca cagctetcca gcctggcga cagagtgaga ctccatctca 1980 aacaacaaca acaacaaca caacaacaa aaaccacaaa attatttgag tactgtgaag 2040

-2-

```
gattatttgt ctaacagttc attccaatca gaccaggtag gagctttcct gtttcatatg 2100
tttcagggtt gcacagttgg tctctttaat gtcggtgtgg agatccaaag tgggttgtgg 2160
aaagagcgtc cataggagaa gtgagaatac tgtgaaaaagg gatgttagca ttcattagag 2220
tatgaggatg agtcccaaga aggttctttg gaaggaggac gaatagaatg gagtaatgaa 2280
attettgeca tgtgetgagg agatagecag cattaggtga caatetteca gaagtggtea 2340
ggcagaaggt gccctggtga gagctccttt acagggactt tatgtggttt agggctcaga 2400
qctccaaaac tctqqqctca qctqctcctq taccttqqaq qtccattcac atqqqaaaqt 2460
attttggaat gtgtcttttg aagagagcat cagagttctt aagggactgg gtaaggcctg 2520
accetqueat gaccatggat attttectae ctacagtttg agteaactag aatatgeetg 2580
gggaccttga agaatgccct tcagtggccc tcaccatttg ttcatgcttc agttaattca 2640
qqtqttqaaq qaqcttaqqt tttaqagqca cgtaqacttg gttcaagtct cgttagtagt 2700
tgaatagcct caggcaagtc actgcccacc taagatgatg gttcttcaac tataaatgga 2760
gataatggtt acaaatgtct cttcctatag tataatctcc ataagggcat ggcccaagtc 2820
tgtctttgac tctgcctatc cctgacgttt agtagcatgc ccgacataca atgttagcta 2880
ttqqtattat tqccatataq ataaattatg tataaaaatt aaactgggca atagcctaag 2940
aaqqqqqqaa tattgtaaca caaatttaaa cccactacgc agggatgagg tgctataata 3000
tgaggacctt ttaacttcca tcattttcct gtttcttgaa atagtttatc ttgtaatgaa 3060
atataaggca ceteceaett ttatgtatag aaagaggtet tttaattttt ttttaatgtg 3120
agaaggaagg gaggagtagg aatcttgaga ttccatatcg aaaatactgt actttggttg 3180
atttttaagt gggcttccat tccatggatt taatcagtcc caagaagatc aaactcagca 3240
qtacttqqqt qctqaaqaac tqttqqattt accctqqcac qtqtqccact tqcccaqctt 3300
cttgggcaca cagagttctt caatccaagt tatcagattg tatttgaaaa tgacagagct 3360
qqaqaqtttt ttgaaatqqc aqtqqcaaat aaataaatac tttttttaa atggaaagac 3420
ttgatctatg gtaataaatg attttgtttt ctgactggaa aaataggcct actaaagatg 3480
aatcacactt gagatgtttc ttactcactc tgcacagaaa caaagaagaa atgttataca 3540
gggaagtccg ttttcactat tagtatgaac caagaaatgg ttcaaaaaca gtggtaggag 3600
caatgettte atagttteag atatggtagt tatgaagaaa acaatgteat ttgetgetat 3660
tattgtaaga gtcttataat taatggtact cctataattt ttgattgtga gctcacctat 3720
ttgggttaag catgccaatt taaagagacc aagtgtatgt acattatgtt ctacatattc 3780
agtgataaaa ttactaaact act
<210> 2
<211> 219
<212> PRT
<213> Homo sapiens
<400> 2
Met Leu Arg Leu Leu Ala Leu Asn Leu Phe Pro Ser Ile Gln Val
                                    10
Thr Gly Asn Lys Ile Leu Val Lys Gln Ser Pro Met Leu Val Ala Tyr
                                25
Asp Asn Ala Val Asn Leu Ser Cys Lys Tyr Ser Tyr Asn Leu Phe Ser
Arg Glu Phe Arg Ala Ser Leu His Lys Gly Leu Asp Ser Ala Val Glu
Val Cys Val Val Tyr Gly Asn Tyr Ser Gln Gln Leu Gln Val Tyr Ser
Lys Thr Gly Phe Asn Cys Asp Gly Lys Leu Gly Asn Glu Ser Val Thr
Phe Tyr Leu Gln Asn Leu Tyr Val Asn Gln Thr Asp Ile Tyr Phe Cys
                                105
                                                    110
Lys Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser
                            120
Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser Pro
                        135
                                            140
Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Gly
                    150
                                        155
```

Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile

170

165

 Phe
 Trp
 Val
 Arg
 Ser
 Lys
 Arg
 Ser
 Arg
 Leu
 Leu
 His
 Ser
 Asp
 Tyr
 Met

 Asn
 Met
 Thr
 Pro
 Arg
 Arg
 Pro
 Gly
 Pro
 Thr
 Arg
 Lys
 His
 Tyr
 Gln
 Pro

 Tyr
 Ala
 Pro
 Pro
 Arg
 Arg
 Pro
 Arg
 Ser
 Fro
 F